



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

AUG 13 2013

OFFICE OF  
SOLID WASTE AND  
EMERGENCY RESPONSE

Ms. Marilyn Thomas  
Environmental Engineer Consultant  
Division of Water  
Kentucky Department of Environmental Protection  
200 Fair Oaks Lane  
Fourth Floor  
Frankfort, Kentucky 40601

Dear Ms. Thomas:

I am writing to provide you with an update on the U.S. Environmental Protection Agency's (EPA) structural integrity assessments of the surface impoundments containing coal combustion residuals at electric utilities located in your state.

After the catastrophic release of coal ash from the Tennessee Valley Authority's Kingston, Tennessee facility in December 2008, the EPA, in collaboration with the states, undertook a nationwide comprehensive effort to assess the structural integrity of surface impoundments and similar units that contain coal combustion residuals. The purpose of the assessments was to determine whether the units are structurally stable or whether any corrective measures were needed, and, if so, to work with each facility to secure its commitment to complete any necessary corrective measures. We thank you for your assistance and support throughout this process.

All above ground units with maximum embankment heights of greater than six (6) feet at facilities in your state have been assessed by experts in dam safety, working under the direction of the EPA. Each facility has received or will shortly receive, a final report containing recommendations for corrective measures or studies needed to ensure the ongoing structural integrity of their impoundments and each facility has submitted an action plan to the EPA setting out how they plan to implement the recommendations.<sup>1</sup> The EPA's assessment effort was an extraordinary effort undertaken due to the critical need to ensure the structural integrity of these units. The EPA was able to bring dam safety experts in quickly and to subject these units nationwide to the same scrutiny. The assessments, analyses, reports and recommendations constitute a critical body of information which serves all of us in our ongoing efforts to protect human health and the environment. For complete information on structural integrity assessments, analyses, reports, and recommendations, please visit the EPA's website at <http://www.epa.gov/osw/nonhaz/industrial/special/fossil/surveys2/>.

These assessments, however, reflect the condition of each unit at the point in time during which each assessment took place. Going forward, an ongoing routine program to assess these units and take any needed corrective measures is required to ensure the units' continued structural integrity. The continuing

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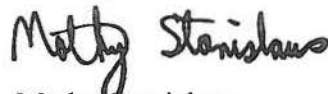
<sup>1</sup> We invited representatives from your State to accompany EPA on the site assessments; we also provided the States an opportunity to submit comments on the draft reports and have provided the States a copy of the final report.

responsibility to ensure that these units are structurally sound lies first with each facility's owner and operator; however, you have an important role in monitoring and overseeing these units. We are therefore providing you this information to aid in your ongoing efforts.

We have enclosed a summary table for the facilities and units in your state. In addition, we will provide you with all the information from the EPA's assessment effort for each facility within your state for your use in the monitoring and oversight of these units. In those situations where we have not completed the assessment process for a particular unit, we will note that fact in the summary table. When we have completed the process, we will provide you all of the information on that unit. We would be happy to discuss any of this information with you and will provide the EPA contact when we forward you the detailed information. We also note that should the agency become aware of a situation where there is threat of release or other potential endangerment to human health or the environment, the EPA may take appropriate action. In such circumstances, the EPA will coordinate with you to ensure that measures protective of human health and the environment are taken in a timely fashion.

We again thank you for your cooperation throughout the assessment process and encourage you to continue your efforts to ensure the structural integrity of these units.

Sincerely,

A handwritten signature in black ink that reads "Mathy Stanislaus". The signature is written in a cursive, slightly slanted style.

Mathy Stanislaus  
Assistant Administrator

Enclosure



## KENTUCKY

Company	Facility (Number of Units)	Action Plan	State	Impoundment Name	Hazard Potential	Final Report Condition Rating
E.ON - Louisville Gas & Electric	Trimble County Station (1)	Yes	KY	Bottom Ash Pond	Significant	Satisfactory

Company	Facility (Number of Units)	Action Plan	State	Impoundment Name	Hazard Potential	Final Report Condition Rating
American Electric Power	Big Sandy (2)	Yes	KY	Bottom Ash Complex	Significant	Fair
				Fly Ash Ponds (Horseford Run Dam and Saddle Dam)	High	Satisfactory

Company	Facility (Number of Units)	Action Plan	State	Impoundment Name	Hazard Potential	Final Report Condition Rating
E.ON - Louisville Gas & Electric	Cane Run Power Station (2)	Yes	KY	Ash Treatment Basin Complex/E-Pond	High	Satisfactory
				Basin Pond/Dead Storage Pond	Low	Fair

Company	Facility (Number of Units)	Action Plan	State	Impoundment Name	Hazard Potential	Final Report Condition Rating
Big Rivers	Coleman (2)	Yes	KY	Active Ash Pond A	Significant	Fair
				Inactive Ash Pond C	Significant	Fair

**NOTE:** "\*" Signifies that a Company has claimed Confidential Business Information (CBI) for that particular facility and Final Reports and/or Action Plans contain CBI and have not been publicly released. All documents that **DO NOT** fall under a claim of CBI (Draft Reports, Comments, Final Reports, Recommendations Letters and Action Plans), may be found at <http://www.epa.gov/osw/nonhaz/industrial/special/fossil/surveys2/>

Company	Facility (Number of Units)	Action Plan	State	Impoundment Name	Hazard Potential	Final Report Condition Rating
E.ON - Kentucky Utilities	EW Brown (2)	Yes	KY	Auxiliary Ash Pond	High	Satisfactory
				Main Ash Pond	High	Satisfactory

Company	Facility (Number of Units)	Action Plan	State	Impoundment Name	Hazard Potential	Final Report Condition Rating
E.ON - Kentucky Utilities	Ghent Facility (3)	Yes	KY	Ash Treatment Basin #1	High	Satisfactory
				Ash Treatment Basin #2	High	Satisfactory
				Gypsum Stacking Facility	High	Satisfactory

Company	Facility (Number of Units)	Action Plan	State	Impoundment Name	Hazard Potential	Final Report Condition Rating
Louisville Gas & Electric Co.	Mill Creek (1)	Yes	KY	Ash Pond	High	Fair

Company	Facility (Number of Units)	Action Plan	State	Impoundment Name	Hazard Potential	Final Report Condition Rating
Duke Energy Corp	East Bend Power Station (1)	Yes	KY	Ash Pond	Significant	Poor

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Company	Facility (Number of Units)	Action Plan	State	Impoundment Name	Hazard Potential	Final Report Condition Rating
Big Rivers (bought from Western KY)	Reid/Green/HMPL (2)	Yes	KY	Reid/HMPL Ash Pond	Significant	Fair
				Green Ash Pond	Low	Fair

Company	Facility (Number of Units)	Action Plan	State	Impoundment Name	Hazard Potential	Final Report Condition Rating
East Kentucky Power Coop Inc*	Dale Power Station (3)	Yes	KY	Dale Ash Pond #2	Significant	Fair
				Dale Ash Pond #3	Significant	Fair
				Dale Ash Pond #4	Significant	Fair

Company	Facility (Number of Units)	Action Plan	State	Impoundment Name	Hazard Potential	Final Report Condition Rating
East Kentucky Power Coop Inc*	H. L. Spurlock Power Station (1)	Yes	KY	Spurlock Ash Pond	Low	Satisfactory

Company	Facility (Number of Units)	Action Plan	State	Impoundment Name	Hazard Potential	Final Report Condition Rating
Kentucky Utilities Co	Green River Power Station (4)	Yes	KY	Ash Pond Number 2	Significant	Poor
				Former Ash Pond	Significant	Poor
				Main Ash Pond	Significant	Fair
				Scrubber Pond	Significant	Fair

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Company	Facility (Number of Units)	Action Plan	State	Impoundment Name	Hazard Potential	Final Report Condition Rating
Kentucky Utilities Co	Pineville Station (1)	Yes	KY	Ash Pond	Low	Satisfactory

Company	Facility (Number of Units)	Action Plan	State	Impoundment Name	Hazard Potential	Final Report Condition Rating
Kentucky Utilities Co	Tyrone Power Station (1)	Yes	KY	Ash Pond	Significant	Fair

Company	Facility (Number of Units)	Action Plan	State	Impoundment Name	Hazard Potential	Final Report Condition Rating
Tennessee Valley Authority	Paradise Fossil Plant (3)	See Note	KY	Peabody Ash Pond	Significant	Fair
				Scrubber Sludge Complex /East and West Ponds	Significant	Fair
				Slag Ponds 2A & 2B	Significant	Fair

**Note:** Action Plan incomplete.

Company	Facility (Number of Units)	Action Plan	State	Impoundment Name	Hazard Potential	Final Report Condition Rating
Tennessee Valley Authority	Shawnee Fossil Plant (1)	Yes	KY	Ash Pond	Significant	Satisfactory

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## **CONDITION RATINGS**

The condition rating of an impoundment represents an assessment of the overall expected performance of the impoundment at the time of assessment considering all pertinent engineering conditions. Each impoundment at each facility was rated using the following categories:

### **Satisfactory**

No existing or potential management unit safety deficiencies are recognized. Acceptable performance is expected under all applicable loading conditions (static, hydrologic, seismic) in accordance with the applicable criteria. Minor maintenance items may be required.

### **Fair**

Acceptable performance is expected under all required loading conditions (static, hydrologic, seismic) in accordance with the applicable safety regulatory criteria. Minor deficiencies may exist that require remedial action and/or secondary studies or investigations.

### **Poor**

A management unit safety deficiency is recognized for a required loading condition (static, hydrologic, seismic) in accordance with the applicable dam safety regulatory criteria. Remedial action is necessary. "Poor" also applies when further critical studies or investigations are needed to identify any potential dam safety deficiencies.

### **Unsatisfactory**

Considered unsafe. A dam safety deficiency is recognized that requires immediate or emergency remedial action for problem resolution. Reservoir restrictions may be necessary.

## **HAZARD POTENTIAL RATINGS**

The hazard potential ratings refer to the potential for loss of life or damage if there is a dam failure. The ratings do not refer to the structural stability of the dam. Specifically:

### **High Hazard Potential**

Dams assigned the high hazard potential classification are those where failure or mis-operation will probably cause loss of human life.

### **Significant Hazard Potential**

Dams assigned the significant hazard potential classification are those dams where failure or mis-operation results in no probable loss of human life, but can cause economic loss, environment damage, disruption of lifeline facilities, or impact other concerns. Significant hazard potential classification dams are often located in predominantly rural or agricultural areas, but could be located in areas with population and significant infrastructure.

### **Low Hazard Potential**

Dams assigned the low hazard potential classification are those where failure or mis-operation results in no probable loss of human life and low economic and/or environmental losses. Losses are principally limited to the owner's property.

### **Less Than Low Hazard Potential**

Dams which do not pose high, significant, or low hazard potential.